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EXAMINER

RIVERO, ALEJANDRO

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,464	Applicant(s) KOIZUMI ET AL.	
	Examiner Alejandro Rivero	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is respectfully suggested by the examiner: MOBILE PHONE AND METHOD FOR DISPLAYING VIDEO AND DISPLAYING INCOMING CALL/MESSAGE INFORMATION WITHOUT INTERRUPTING DISPLAYING VIDEO.

2. The disclosure is objected to because of the following informalities:

In page 27 (line 22), the examiner respectfully suggests replacing "fourth screen 153" with "fourth screen 154".

In page 35 (line 8), the examiner respectfully suggests replacing "screen 13" with "screen 12".

In page 43 (line 24), the examiner respectfully suggests replacing "S215" with "S220".

In page 44 (line 9), the examiner respectfully suggests replacing "S210" with "S230".

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 15-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims to computer data structures and programs per se are not statutory subject matter and are ineligible for patenting. See MPEP 2106 IV B 1(a). On the other hand, a claim to a tangible computer-readable medium encoded with a computer data structure or program is eligible statutory subject matter, i.e. it is one of the four categories of enumerated subject matter, because it is a computer element which defines structural and functional interrelationships between the computer program and other components of a computer which permit the computer program's functionality to be realized. The examiner respectfully suggests modifying the claims to clearly indicate it is an article of manufacture claim, that the contents are carried on a computer readable or useable medium in a manner that will affect the operation of the computer, what the result using the article of manufacture is, and each of the patentably significant elements of the program or data structure that imparts the patentable functionality, so long as it is supported by the specification, in order to overcome the rejection under 35 U.S.C. 101. For the purpose of this examination, claims 15-18 will be treated as being directed to "A computer program stored in a computer-readable medium" instead of "A computer program".

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Bum (US 2003/0013417 A1).

Consider claim 15 (and the rejection under 35 U.S.C. 101 above), Bum discloses a computer program applied in a mobile phone that receives a video signal and displays video on a screen (paragraphs [0004]-[0008], [0025], [0027] and [0030]-[0036], where Bum discloses, in a cellular phone, receiving a video signal at the display control unit and displaying the image in a display unit), and includes an acquiring unit, a generating unit and a display unit, the computer program causing a computer to execute the steps of using the acquiring unit to acquire incoming signal information related to an incoming signal or detection information related to detection of a prescribed operation by a user (paragraphs [0025]-[0033], where Bum discloses a signal processing device receives a resulting value (incoming signal information) indicating rotation/direction of display unit which is used to determine a ratio of the horizontal/vertical resolution of the image (hence related to an incoming signal) and also discloses a key input unit for receiving an external (user) operation signal and sensing unit sensing rotation (by user) of the display), using the generating unit to generate display information related to mobile communication (paragraphs [0004]-[0008], [0030] and [0037] where Bum discloses the mobile device accessing (communication) the internet (hence mobile communication) to receive information, storing motion picture files and a video signal generating unit and a signal output unit for generating the video signals to be displayed), and using the

display unit to display the incoming signal information or the display information (paragraphs [0004]-[0008], [0030] and [0037] where Bum discloses the mobile device accessing (communication) the internet (hence mobile communication) to receive information, storing motion picture files and a video signal generating unit and a signal output unit for generating the video signals to be displayed).

Consider claim 17, Bum discloses all the limitations as applied to claim 15 above and also discloses wherein the acquiring step uses the acquiring unit to acquire the detection information by detecting a prescribed operation (rotation of display) by the user during video display in a standard video display orientation (horizontal or vertical) and the display step uses the display unit to generate downscaled/rotated video as the downscaled video by downscaling (adjusting a ratio) and rotating the video 90 degrees from the standard video display orientation if the detection information (sensed value from rotation sensor) is acquired (paragraphs [0007]-[0008], [0025]-[0037]).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1, 2, 4, 5, 7, 8, 9, 11, 12, 13 and 16 are rejected under 35 U.S.C.

103(a) as being unpatentable over Bum (US 2003/0013417 A1) in view of Mizuta et al. (US 2003/0064758 A1).

Consider claim 1, Bum discloses a mobile phone for receiving a video signal and displaying video on a screen (paragraphs [0004]-[0008], [0025], [0027] and [0036], where Bum discloses, in a cellular phone, receiving a video signal at the display control unit and displaying the image in a display unit), comprising an acquiring unit operable to acquire incoming signal information related to an incoming signal or detection information related to detection of a prescribed operation by a user (paragraphs [0025]-[0033], where Bum discloses a signal processing device receives a resulting value (incoming signal information) indicating rotation/direction of display unit which is used to determine a ratio of the horizontal/vertical resolution of the image (hence related to an incoming signal) and also discloses a key input unit for receiving an external (user) operation signal and sensing unit sensing rotation (by user) of the display), a generating unit operable to generate display information related to mobile communication (paragraphs [0004]-[0008], [0030] and [0037] where Bum discloses the mobile device accessing (communication) the internet (hence mobile communication) to receive information, storing motion picture files and a video signal generating unit and a signal output unit for generating the video signals to be displayed), and a display unit operable

to generate downscaled video by downscaling the video being displayed on the screen relative to a size of the displayed video (paragraphs [0033]-[0036] where Bum discloses adjusting the ratio of the horizontal/vertical resolution depending on the direction/rotation of the display screen), playing the downscaled video in a first display area (paragraphs [0033]-[0036] and figure 6b) and partitioning the screen in two (paragraphs [0033]-[0036] and figure 6b where Bum discloses adjusting the ratio of the horizontal/vertical resolution depending on the direction/rotation of the display screen and discloses the video being displayed in a first portion of the screen and a second portion of the screen not playing the video).

Bum does not specify displaying the video and display information respectively in a first display area and a second display area.

Mizuta et al. disclose displaying the video and display information respectively in a first display area and a second display area (paragraph [0118] and figure 10b).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to display the video and display information respectively in a first display area and a second display area as taught by Mizuta et al. in the device of Bum for the purpose of providing the user with first a video and second supplementary information such as subtitle information relating to the contents (which would be advantageous in a situation where the user is not able/allowed to listen to audio of the contents due to noise restrictions such as in a library, or when the contents have dialogue in a foreign language) and additionally providing the user with access to other functions such as

email while viewing content at the same time therefore allowing the user to access email or like functions without interrupting viewing of content (as suggested by Mizuta et al. in paragraph [0118] and by Bum in paragraphs [0037]-[0038]).

Consider claim 11, Bum discloses a display method used by a mobile phone that receives a video signal and displays video on a screen (paragraphs [0004]-[0008], [0025], [0027] and [0036], where Bum discloses, in a cellular phone, receiving a video signal at the display control unit and displaying the image in a display unit), and includes an acquiring unit, a generating unit and a display unit, comprising the steps of using the acquiring unit to acquire incoming signal information related to an incoming signal or detection information related to detection of a prescribed operation by a user (paragraphs [0025]-[0033], where Bum discloses a signal processing device receives a resulting value (incoming signal information) indicating rotation/direction of display unit which is used to determine a ratio of the horizontal/vertical resolution of the image (hence related to an incoming signal) and also discloses a key input unit for receiving an external (user) operation signal and sensing unit sensing rotation (by user) of the display), using the generating unit to generate display information related to mobile communication (paragraphs [0004]-[0008], [0030] and [0037] where Bum discloses the mobile device accessing (communication) the internet (hence mobile communication) to receive information, storing motion picture files and a video signal generating unit and a signal output unit for generating the video signals to be displayed), and using the display unit to generate downscaled video by downscaling the video being displayed on the screen relative to a size of the displayed video (paragraphs [0033]-[0036] where

Bum discloses adjusting the ratio of the horizontal/vertical resolution depending on the direction/rotation of the display screen), playing the downscaled video in a first display area (paragraphs [0033]-[0036] and figure 6b), and partitioning the screen in two (paragraphs [0033]-[0036] and figure 6b where Bum discloses adjusting the ratio of the horizontal/vertical resolution depending on the direction/rotation of the display screen and discloses the video being displayed in a first portion of the screen and a second portion of the screen not playing the video).

Bum does not specify displaying the video and display information respectively in a first display area and a second display area.

Mizuta et al. disclose displaying the video and display information respectively in a first display area and a second display area (paragraph [0118] and figure 10b).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to display the video and display information respectively in a first display area and a second display area as taught by Mizuta et al. in the method of Bum for the purpose of providing the user with first a video and second supplementary information such as subtitle information relating to the contents (which would be advantageous in a situation where the user is not able/allowed to listen to audio of the contents due to noise restrictions such as in a library, or when the contents have dialogue in a foreign language) and additionally providing the user with access to other functions such as email while viewing content at the same time therefore allowing the user to access

email or like functions without interrupting viewing of content (as suggested by Mizuta et al. in paragraph [0118] and by Bum in paragraphs [0037]-[0038]).

Consider claims 2, 12 and 16, Bum as modified by Mizuta et al. disclose all the limitations as applied to claims 1 and 11 above and Bum also discloses all the limitations as applied to claim 15 above.

Bum does not specify wherein the incoming signal information includes ID information identifying an originator and the generating unit generates the display information based on the ID information.

Mizuta et al. disclose wherein the incoming signal information includes ID information identifying an originator and the generating unit generates the display information based on the ID information (paragraphs [0118], [0142]-[0145] and [0162] where Mizuta et al. disclose that a user can confirm a calling party displayed on the display, hence it is inherent that ID information identifying calling party (originator) was included in the incoming signal since it would be necessary for the signal to have identifying information in order for the device to display the calling party to the user for confirmation).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to display information based on ID information from an incoming signal identifying an originator as taught by Mizuta et al. in the method and device of Bum for the purpose of allowing the user to confirm the calling party which would be advantageous in the case that the user wishes to accept calls from certain calling

parties and/or reject calls from certain calling parties (as suggested by Mizuta et al. in paragraphs [0118], [0142]-[0145] and [0162]).

Consider claims 4 and 9, Bum as modified by Mizuta et al. disclose all the limitations as applied to claims 2 and 5 above and also disclose wherein the mobile phone further receives an audio signal corresponding to the video signal (paragraph [0028] of Bum, where Bum discloses processing an audio signal corresponding to the image being displayed), and outputs audio (paragraph [0028] of Bum, where Bum discloses a speaker unit for outputting audible signal).

Bum does not specify a volume adjusting unit operable to adjust a volume of the audio output on acquiring the incoming signal information, and an audio output unit operable to output or mute the audio based on the adjusted volume.

Mizuta et al. disclose a volume adjusting unit operable to adjust a volume of the audio output on acquiring the incoming signal information, and an audio output unit operable to output or mute the audio based on the adjusted volume (paragraphs [0040], [0118] and [0130] where Mizuta et al. disclose when receiving a call the user is notified by sound alert or other non-audible means and also disclose turning off (mute) sound and displaying subtitles, reads on adjusting volume of audio output).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust (such as to mute) volume of audio output on acquiring incoming signal information as taught by Mizuta et al. in the method and device of Bum in order to allow the user to handle an incoming call and read subtitles while listening to

a calling party thus the user can use a plurality of concurrent functions while viewing content (as suggested by Mizuta et al. in paragraphs [0040], [0118] and [0130] and as suggested by Bum in paragraph [0037]).

Consider claims 5 and 13, Bum as modified by Mizuta et al. disclose all the limitations as applied to claims 1 and 11 above and also disclose wherein the acquiring step uses the acquiring unit to acquire the detection information by detecting a prescribed operation (rotation of display) by the user during video display in a standard video display orientation (horizontal or vertical) and the display step uses the display unit to generate downscaled/rotated video as the downscaled video by downscaling (adjusting a ratio) and rotating the video 90 degrees from the standard video display orientation if the detection information (sensed value from rotation sensor) is acquired (paragraphs [0007]-[0008], [0025]-[0037] of Bum).

Consider claim 7, Bum as modified by Mizuta et al. disclose all the limitations as applied to claim 5 above and also disclose an operation instruction receiving unit operable to receive an operation instruction from the user (paragraph [0025] of Bum, where Bum discloses at least controlling the display unit by operating special keys on a cellular phone, hence receiving operation instruction), and a switching instruction receiving unit operable to receive a switching instruction from the user to switch an operation target (See paragraphs [0004]-[0006], [0025], [0037]-[0039] of Bum, where Bum discloses a mobile device with a plurality of functions (targets) such as calculator, organizer, calendar, MPEG4 player and cellular phone. Bum further discloses programming the device in order to use an existing button of a cellular phone in relation

to an operation of the video player, therefore it is inherent that the device is operable to switch between the aforementioned functions as instructed by the user since in order to for the user to use each of functions such as calculator, organizer, calendar, MPEG4 player and cellular phone, the user must select (switch to) each specific function.) and an operation switching unit operable on receipt of the switching instruction to switch the target of an operation based on the operation instruction from a first function relating to display of the downscaled/rotated video to a second function, or from the second function to the first function (See paragraphs [0004]-[0006], [0025], [0037]-[0039] of Bum, where Bum discloses a mobile device with a plurality of functions (targets) such as calculator (second function), organizer (second function), calendar (second function), MPEG4 player (first function) and cellular phone (second function). Bum further discloses programming the device in order to use an existing button of a cellular phone in relation to an operation of the video player, therefore it is inherent that the device is operable to switch between the aforementioned functions as instructed by the user since in order to for the user to use each of functions such as calculator, organizer, calendar, MPEG4 player and cellular phone, the user must select (switch to) each specific function.).

Bum does not disclose wherein the second function is relating to the display information.

Mizuta et al. disclose wherein the second function is relating to the display information (paragraph [0118], where Mizuta et al. disclose displaying subtitles (display information) or other functions like email).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to switch operation instruction targets between a first function relating to display of the video to a second function related to display information as taught by Mizuta et al. in the method of Bum for the purpose of allowing the user to use (device receives instructions from user) a plurality of concurrent functions such as email and the like, while viewing content (as suggested by Mizuta et al. in paragraph [0118] and as suggested by Bum in paragraph [0037]).

Consider claim 8, Bum as modified by Mizuta et al. disclose all the limitations as applied to claim 7 above and also disclose wherein the operation switching unit receives output destination information showing one of the first function and the second function as the target of the operation based on the operation instruction (See paragraphs [0004]-[0006], [0025], [0037]-[0039] of Bum, where Bum discloses a mobile device with a plurality of functions (targets) such as calculator (second function), organizer (second function), calendar (second function), MPEG4 player (first function) and cellular phone (second function). Bum further discloses programming the device in order to use an existing button of a cellular phone in relation to an operation of the video player, therefore it is inherent that the device receives output destination information to switch between the aforementioned functions as instructed by the user since in order to for the user to use each of functions such as calculator, organizer, calendar, MPEG4 player and cellular phone, the user must select (switch to output destination) each specific function.), and changes the output destination information on receipt of the switching information from information showing a first function to information showing a second

function or from information showing the second function to information showing the first function (See paragraphs [0004]-[0006], [0025], [0037]-[0039] of Bum, where Bum discloses a mobile device with a plurality of functions (targets) such as calculator (second function), organizer (second function), calendar (second function), MPEG4 player (first function) and cellular phone (second function). Bum further discloses programming the device in order to use an existing button of a cellular phone in relation to an operation of the video player, therefore it is inherent that the device changes output destination information to switch between the aforementioned functions as instructed by the user since in order to for the user to use each of functions such as calculator, organizer, calendar, MPEG4 player and cellular phone, the user must select (switch to output destination) each specific function.), and the operation instruction receiving unit outputs the operation instruction to one of the first function and the second function according to information shown by the output destination information (See paragraphs [0004]-[0006], [0025], [0037]-[0039] of Bum, where Bum discloses a mobile device with a plurality of functions (targets) such as calculator (second function), organizer (second function), calendar (second function), MPEG4 player (first function) and cellular phone (second function). Bum further discloses programming the device in order to use an existing button of a cellular phone in relation to an operation of the video player, therefore it is inherent that the device outputs operation instructions to the functions based on output destination information since in order to send the operation instructions to a first or second function, it must switch between the aforementioned

functions and the correct function must be selected and used as the output destination.).

Bum does not specify storing or rewriting output destination information.

Mizuta et al. disclose storing and rewriting output destination information (paragraphs [0138], [0153]-[0157], where Mizuta et al. disclose a user arbitrarily selecting settings (which can vary from those settings previously set, hence rewriting) related to the operation of the display (first output destination) and other functions such as a touch panel function (second output destination) on the display area).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to store and rewrite output destination information as taught by Mizuta et al. in the method of Bum in order to allow the user to determine mobile device settings (such as determining which function will be used at the time by the user) and enable the device to save user settings (such as remain in function selected by the user) until the user decides to change the settings (as suggested by Mizuta et al. in paragraphs [0155]-[0157]).

9. Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bum in view of Mizuta et al. and further in view of Kishimoto et al. (US 2002/0094846 A1).

Consider claims 3 and 6, Bum in view of Mizuta et al. disclose all the limitations as applied to claims 2 and 5 above and also disclose wherein the display unit stores ratio information (paragraph [0032] of Bum, where Bum discloses storing a resulting

value of a sensed rotation which is used to determine an adjustment to an image horizontal/vertical resolution ratio, hence ratio information), and generates the downscaled video by downscaling the video based on the ratio information (paragraphs [0032]-[0036] of Bum, where Bum discloses storing a resulting value of a sensed rotation which is used to determine an adjustment (upscale/downscale) to a horizontal/vertical resolution ratio of an image) and wherein the display unit on receipt of new ratio information upscales or further downscales the downscaled/rotated video based on the received ratio information and displays the downscaled/rotated video after upscaling or further downscaling in the third display area (paragraphs [0032]-[0036] of Bum, where Bum discloses, particularly in paragraph [0035], receiving a different horizontal/vertical set up and changing the magnitude of the image area displayed on the display based on the new ratio information, hence reads on third/fourth display area) and the display information in the fourth display area (paragraph [0118] and figure 10b of Mizuta et al., where Mizuta et al. disclose displaying supplemental information in a portion of the screen other than the portion of the screen displaying video, as applied to claims 2 and 5 above), partitioning the screen in two (paragraphs [0033]-[0036] and figure 6b of Bum, where Bum discloses adjusting the ratio of the horizontal/vertical resolution depending on the direction/rotation of the display screen and discloses the video being displayed in a first portion of the screen and a second portion of the screen not playing the video).

Bum as modified by Mizuta et al. do not disclose that the ratio information shows an area ratio between the first display area and the second display area or an area ratio

between a third display area different in size from the first display area and a fourth display area.

Kishimoto et al. disclose where the ratio information shows an area ratio between the first display area and the second display area or an area ratio between a third display area different in size from the first display area and a fourth display area (paragraphs [0082]-[0089], where Kishimoto et al. disclose selecting a ratio between display areas, wherein the ratio varies (reads on first/second and third/fourth display areas) according to the contents to be displayed).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use ratio information showing an area ratio between the first display area and the second display area or an area ratio between a third display area different in size from the first display area and a fourth display area as taught by Kishimoto et al. in the device and method of Bum as modified by Mizuta et al. in order to vary the size of the display regions according to the contents which will be displayed such that only a region required to display an image is used for displaying an image and is of an appropriate size and the remaining region is not displaying the image (becomes non-image region) in order to consume less electricity, which is advantageous in the case of a battery-powered device because less power consumption extends battery service life of the device (as suggested by Kishimoto et al. in paragraphs [0082]-[0089] and as suggested by Bum in paragraph [0018]).

10. Claims 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bum in view of Mizuta et al. and further in view of Youngs et al. (US 6,600,918 B1) and Saarinen (US 2001/0011993 A1).

Consider claims 10 and 14, Bum as modified by Mizuta et al. disclose all the limitations as applied to claims 1 and 11 above also disclose a speaker unit disposed on a side of the screen (paragraph [0028], figure 4 (right side of display), figure 5 element 113, figure 6a (right side of display) and figure 6b (top of display) of Bum, where Bum discloses a speaker unit for providing an audible signal corresponding to an image displayed on the display unit), and an audio output unit operable to play audio (paragraph [0028], figure 5 element 113 of Bum, where Bum discloses a codec, D/A converter and speaker unit for providing an audible signal (play audio) corresponding to an image displayed on the display unit).

Bum as modified by Mizuta et al. do not disclose playing audio included in a television broadcast signal, using two speakers disposed one on either side of the screen, in stereo when the two speakers are positioned laterally relative to the video, and in monaural when the two speakers are positioned vertically relative to the video.

Youngs et al. disclose playing audio included in a television broadcast signal (column 3 lines 3-35).

Saarinen discloses playing audio using at least two speakers disposed one on either side of the screen (paragraphs [0005], [0013]-[0018], [0024]-[0029], [0081]-[0087], [0094]-[0097], figures 4a, 4b, 6a and 6b, where Saarinen discloses at least two speakers disposed one on either side of the display), in stereo when the two speakers

are positioned laterally (landscape) relative to the video (paragraphs [0013]-[0018], [0024]-[0029], [0081]-[0087], [0094]-[0097], figures 4a, 4b, 6a and 6b, where Saarinen discloses, for example, speakers 26b and 26d provide stereo base for the landscape orientation while speaker 26a is inactive, thus reads on two speakers (26b and 26d) positioned laterally playback audio in stereo), and in monaural when the two speakers are positioned vertically (portrait) relative to the video (paragraphs [0013]-[0018], [0024]-[0029], [0081]-[0087], [0094]-[0097], figures 4a, 4b, 6a and 6b, where Saarinen discloses, for example, speakers 26b and 26a provide stereo base for the portrait orientation while speaker 26d is inactive, thus reads on two speakers (26b and 26d) positioned laterally playing audio in mono since only 26b (hence mono) is reproducing audio out of the two speakers 26b and 26d which are positioned vertically with respect to the video).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to play audio included in a television broadcast signal as taught by Youngs et al. with at least two speakers disposed one on either side of the screen, in stereo when the two speakers are positioned laterally relative to the video, and in monaural when the two speakers are positioned vertically relative to the video as taught by Saarinen in the device and method of Bum as modified by Mizuta et al. in order to provide the user with their favorite programming during movement (which is advantageous since otherwise the user would miss a television program during movement) and to provide the user with an appropriate spatial audio image corresponding to the orientation of an image been viewed by the user/listener (as

suggested by Youngs et al. in column 1 lines 21-48, column 3 lines 3-29 and column 4 lines 10-60, as suggested by Saarinen in paragraphs [0002]-[0005], [0012]-[0018], [0024]-[0029], [0081]-[0087], [0094]-[0097] and [0132]-[0135], as suggested by Bum in paragraphs [0004]-[0007], [0028] and [0037]-[0039], as suggested by Mizuta et al. in paragraphs [0006], [0078] and [0097]).

11. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bum in view of Youngs et al. (US 6,600,918 B1) and Saarinen (US 2001/0011993 A1).

Consider claim 18, Bum discloses all the limitations as applied to claim 15 above and also disclose a speaker unit disposed on a side of the screen (paragraph [0028], figure 4 (right side of display), figure 5 element 113, figure 6a (right side of display) and figure 6b (top of display) of Bum, where Bum discloses a speaker unit for providing an audible signal corresponding to an image displayed on the display unit), and an audio output unit operable to play audio (paragraph [0028], figure 5 element 113 of Bum, where Bum discloses a codec, D/A converter and speaker unit for providing an audible signal (play audio) corresponding to an image displayed on the display unit).

Bum does not disclose playing audio included in a television broadcast signal, using two speakers disposed one on either side of the screen, in stereo when the two speakers are positioned laterally relative to the video, and in monaural when the two speakers are positioned vertically relative to the video.

Youngs et al. disclose playing audio included in a television broadcast signal (column 3 lines 3-35).

Saarinen discloses playing audio using at least two speakers disposed one on either side of the screen (paragraphs [0005], [0013]-[0018], [0024]-[0029], [0081]-[0087], [0094]-[0097], figures 4a, 4b, 6a and 6b, where Saarinen discloses at least two speakers disposed one on either side of the display), in stereo when the two speakers are positioned laterally (landscape) relative to the video (paragraphs [0013]-[0018], [0024]-[0029], [0081]-[0087], [0094]-[0097], figures 4a, 4b, 6a and 6b, where Saarinen discloses, for example, speakers 26b and 26d provide stereo base for the landscape orientation while speaker 26a is inactive, thus reads on two speakers (26b and 26d) positioned laterally playback audio in stereo), and in monaural when the two speakers are positioned vertically (portrait) relative to the video (paragraphs [0013]-[0018], [0024]-[0029], [0081]-[0087], [0094]-[0097], figures 4a, 4b, 6a and 6b, where Saarinen discloses, for example, speakers 26b and 26a provide stereo base for the portrait orientation while speaker 26d is inactive, thus reads on two speakers (26b and 26d) positioned laterally playing audio in mono since only 26b (hence mono) is reproducing audio out of the two speakers 26b and 26d which are positioned vertically with respect to the video).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to play audio included in a television broadcast signal as taught by Youngs et al. with at least two speakers disposed one on either side of the screen, in stereo when the two speakers are positioned laterally relative to the video, and in monaural when the two speakers are positioned vertically relative to the video as taught by Saarinen in the method of Bum in order to provide the user with their favorite

programming during movement (which is advantageous since otherwise the user would miss a television program during movement) and to provide the user with an appropriate spatial audio image corresponding to the orientation of an image been viewed by the user/listener (as suggested by Youngs et al. in column 1 lines 21-48, column 3 lines 3-29 and column 4 lines 10-60, as suggested by Saarinen in paragraphs [0002]-[0005], [0012]-[0018], [0024]-[0029], [0081]-[0087], [0094]-[0097] and [0132]-[0135], as suggested by Bum in paragraphs [0004]-[0007], [0028] and [0037]-[0039]).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alejandro Rivero whose telephone number is 571-272-2839. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

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Representative or access to the automated information system, call 800-786-9199 (IN
USA OR CANADA) or 571-272-1000.

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